

AMENDMENTS TO THE CLAIMS

1. **(Currently amended)** A process for the preparation of a composition comprising a mixture of linolenic acids, said linolenic acids being *9cis,11trans,15cis*-octadecatrienoic acid and *9cis,13trans,15cis*-octadecatrienoic acid ~~and having a ratio of 1:1 w:w, a concentration of said mixture varying between 30% and 90% by weight relative to the weight of the composition,~~ said process comprising the steps of:

- providing a solvent of water;
- blending with the solvent in the presence of a base one or a mixture of vegetable oils with various concentrations of linolenic acid or partial glycerides of such oils or partially purified and/or concentrated isomers to produce a reaction mixture with a base and in the presence of water; and
- recovering from the reaction mixture the composition comprising the mixture of resulting conjugated linolenic acids.

2. **(Currently amended)** The process according to claim 1, wherein the step of blending is performed at a temperature ranging from 160°C to 200°C.

3. **(Previously presented)** The process according to claim 2, wherein the temperature is 180°C.

4. **(Currently amended)** The process according to claim 1, wherein said process proceeds for a period varying between 0.5 hour to 4 hours.

5. **(Previously presented)** The process according to claim 4, wherein the period is 2 hours.

6. **(Previously presented)** The process of claim 1, wherein the vegetable oil comprises linseed oil, *Plukenetia volubilis* oil, borage oil or a mixture thereof.

7. **(Previously presented)** The process of claim 1, wherein the base is selected from a group consisting of sodium hydroxide, sodium alkoxylate, sodium metal, potassium hydroxide, potassium alkoxylate and potassium metal.

8. **(Previously presented)** The process according to claim 7, wherein the base is potassium hydroxide or sodium hydroxide.

9. **(Currently amended)** A composition comprising a mixture of linolenic acids, said linolenic acids being *9cis,11trans,15cis*-octadecatrienoic acid and *9cis,13trans,15cis*-

octadecatrienoic acid, wherein said linolenic acids are present in a ratio of 1:1 w:w and said mixture varying between 30% and 90% by weight relative to the weight of the composition, wherein the composition is prepared by

providing a solvent of water or polyol;

blending with the solvent in the presence of a strong base, one or a mixture of vegetable oil having various concentrations of linolenic acid or partial glycerides of such oils or partially purified and/or concentrated isomers, to produce a reaction mixture at a temperature of 160°C to 200°C; and

recovering from the reaction mixture the composition comprising the mixture of linolenic acids.

10. **(Previously presented)** The composition according to claim 9, wherein it comprises at least 40% by weight of said mixture, and less than 0.5% by weight of 11,13-cyclic by-product.

11. **(Cancelled)**

12. **(Cancelled)**

13. **(Cancelled)**

14. **(Cancelled)**

15. **(Previously presented)** A method for inducing apoptosis of mammalian solid neoplastic cancer cells, comprising contacting said cells with a therapeutically effective amount of the composition according to claim 9.

16. **(Cancelled)**

17. **(Previously presented)** The method of claim 15, wherein the mammalian solid neoplastic cancer cells are breast cancer cells.

18. **(Previously presented)** The method of Claim 17, wherein said breast cancer cells are human breast cancer cells.

19. **(Previously presented)** The method of Claim 18, wherein the human breast cancer cells are selected from the group consisting of estrogen positive and estrogen negative breast cancer cells.

20. **(Previously presented)** The method of Claim 19, wherein the breast cancer cells are from cells lines MB-231 or MCF-7.

21. **(Previously presented)** The method of Claim 20, wherein the step of contacting the cells with the composition is performed *in vitro*.

22. **(New)** The process of claim 1, wherein before the step of blending, the base is mixed with the solvent of water.

23. **(New)** The process of claim 8, wherein the base and the solvent of water are used in a relative proportion by weight between 4.2:100 and 8:100.

24. **(New)** The process of claim 23, wherein the vegetable oil is linseed oil.

25. **(New)** The process of claim 24, wherein the linseed oil is used in a relative proportion by weight to the base and solvent between 7.8:81.2 and 23:77.

26. **(New)** The process of claim 24, further comprising, after producing the reaction mixture, the step of: cooling the reaction mixture to 60°C and adding a stoichiometric amount of CaCl_2 to convert sodium soaps into calcium soaps.

27. **(New)** The process of claim 26, further comprising, after producing the calcium soaps, the step of: filtering the mixture and washing with water.

28. **(New)** The process of claim 27, further comprising, after filtering, the step of: adding a stoichiometric amount of H_2SO_4 in methanol to produce CaSO_4 precipitate at a pH of 3 to produce a free fatty acid solution.

29. **(New)** The process of claim 28, further comprising, after producing the free fatty acid solution, the step of: subjecting the solution to repetitive urea crystallizations.

30. **(New)** The process of claim 29, further comprising, after subjecting the composition to repetitive urea crystallizations, the step of: subjecting the composition to argentation liquid chromatography.

31. **(New)** The process of claim 1, wherein the composition is recovered to comprise the mixture of 9cis,13trans,15cis-octadecatrienoic acid and 9cis,11trans,15cis-octadecatrienoic

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acid in a ratio of 1:1 w/w, a concentration of said mixture varying between 30% and 90% by weight relative to the weight of the composition.